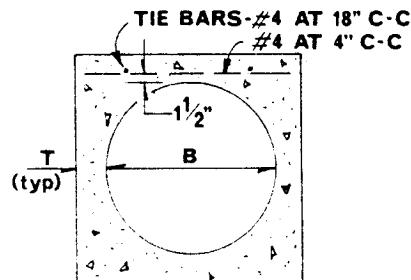
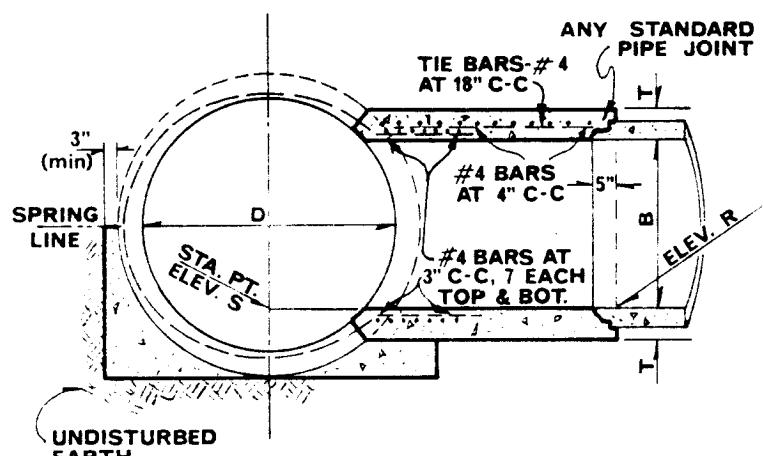


| TABLE OF VALUES FOR T | |
|-----------------------|--------|
| B | T |
| 12" | 4" |
| 15" | 4 1/4" |
| 18" | 4 1/2" |
| 21" | 5" |
| 24" | 5 1/4" |
| 27" | 5 1/2" |
| 30" | 6" |
| 33" | 6 1/4" |
| 36" | 6 1/2" |
| 39" | 7" |

PLAN



SECTION Y - Y



SECTION Z - Z

NOTES:

- Values for A,B,C,D,E, & L, elevations R and S shown on improvement plan. (See Sheet 2 of 2.)
- Cradle may be omitted on side opposite lateral inlet when connecting with existing storm drain pipe.
- Transverse reinforcement in pipe shall be cut in center of opening and bent to uniform distance from top and bottom of junction structure.
- Concrete shall be class 560 - C- 3250.
- Reinforcing steel shall be 1.5" clear from face of concrete.
- Floor of structure shall be steel-troweled to spring line.

| | | | |
|---|----------------------|-------|--------|
| APPROVED | <i>Robert Miller</i> | DATE | 7/1/73 |
| PUBLIC WORKS DIRECTOR - R.C.E. 18793 | | | |
| <input checked="" type="checkbox"/> Added Notations | | | |
| MARK | REVISIONS | APPR. | DATE |

CITY OF RIVERSIDE
PUBLIC WORKS DEPT. - ENGINEERING DIV.

JUNCTION STRUCTURE B

STANDARD DRAWING NO.

421

Sheet 1 of 2

| STORM DRAIN MAIN | | | | | | | |
|------------------|--------|-------------|------------|------------|------------|------------|------------|
| DIA | WLF | 30 | 40 | 50 | 60 | 70 | 80 |
| 12 | C E | 2.2 1.4 | 1.8 1.0 | 1.6 0.7 | 1.5 0.5 | 1.4 0.3 | 1.3 0.1 |
| 15 | C E | 2.5 1.7 | 2.0 1.2 | 1.8 0.8 | 1.6 0.6 | 1.5 0.4 | 1.5 0.2 |
| 18 | C E | 2.8 1.9 | 2.3 1.3 | 2.0 0.9 | 1.8 0.6 | 1.7 0.4 | 1.6 0.2 |
| 21 | C E | 3.1 2.2 | 2.5 1.5 | 2.2 1.1 | 2.0 0.7 | 1.9 0.5 | 1.8 0.3 |
| 24 | C E | 3.4 2.5 | 2.7 1.7 | 2.4 1.2 | 2.2 0.8 | 2.0 0.5 | 2.0 0.3 |
| 27 | C E | 3.7 2.7 | 3.0 1.9 | 2.6 1.3 | 2.3 0.9 | 2.2 0.6 | 2.1 0.3 |
| 30 | C E | 4.0 3.0 | 3.2 2.1 | 2.8 1.5 | 2.5 1.0 | 2.4 0.6 | 2.3 0.3 |
| 33 | C E | 4.3 3.3 | 3.6 2.3 | 3.0 1.6 | 2.7 1.1 | 2.5 0.7 | 2.4 0.3 |
| 36 | C E | 4.6 3.5 | 3.7 2.4 | 3.2 1.7 | 2.9 1.2 | 2.7 0.7 | 2.6 0.4 |
| 39 | C E | 4.9 3.8 | 3.9 2.6 | 3.4 1.9 | 3.0 1.3 | 2.9 0.8 | 2.7 0.4 |
| 42 | C E | 5.3 4.1 | 4.2 2.8 | 3.6 2.0 | 3.2 1.4 | 3.0 0.9 | 2.9 0.4 |
| 45 | C E | 5.5 4.4 | 4.6 3.0 | 3.8 2.1 | 3.6 1.5 | 3.2 0.9 | 3.1 0.4 |
| 48 | C E | 5.8 4.6 | 4.6 3.2 | 4.0 2.2 | 3.6 1.5 | 3.3 1.0 | 3.2 0.5 |
| 51 | C E | 6.2 5.9 | 6.9 3.6 | 4.2 2.6 | 3.8 1.6 | 3.5 1.0 | 3.4 0.5 |
| 54 | C E | 6.5 5.2 | 5.2 3.6 | 4.4 2.5 | 4.0 1.7 | 3.7 1.1 | 3.5 0.5 |
| 57 | C E | 6.8 5.4 | 5.6 3.7 | 4.6 2.6 | 4.1 1.8 | 3.8 1.1 | 3.7 0.6 |
| 60 | C E | 7.1 5.7 | 5.6 3.9 | 4.8 2.8 | 4.3 1.9 | 4.0 1.2 | 3.8 0.6 |
| 63 | C E | 7.4 6.0 | 5.9 4.1 | 5.0 2.9 | 4.5 2.0 | 4.2 1.3 | 4.0 0.6 |
| 66 | C E | 7.7 6.2 | 6.1 4.3 | 5.2 3.0 | 4.7 2.1 | 4.3 1.3 | 4.2 0.6 |
| 69 | C E | 8.0 6.5 | 6.6 4.5 | 5.4 3.2 | 4.9 2.2 | 4.5 1.4 | 4.3 0.7 |
| 72 | C E | 8.3 6.8 | 6.6 4.7 | 5.6 3.3 | 5.0 2.3 | 4.7 1.4 | 4.5 0.7 |
| 75 | C E | 8.6 7.0 | 6.8 4.8 | 5.8 3.6 | 5.2 2.3 | 4.8 1.5 | 4.6 0.7 |
| 78 | C E | 9.0 7.3 | 7.1 5.0 | 6.0 3.5 | 5.4 2.4 | 5.0 1.5 | 4.8 0.7 |
| 81 | C E | 9.3 7.6 | 7.3 5.2 | 6.2 3.7 | 5.6 2.5 | 5.2 1.6 | 4.9 0.8 |
| 84 | C E | 9.6 7.9 | 7.6 5.4 | 6.4 3.8 | 5.7 2.6 | 5.3 1.7 | 5.1 0.8 |
| 87 | C E | 9.9 8.1 | 7.8 5.6 | 6.6 3.9 | 5.9 2.7 | 5.5 1.7 | 5.3 0.8 |
| 90 | C E | 10.2 8.4 | 8.1 5.8 | 6.8 4.1 | 6.1 2.8 | 5.7 1.8 | 5.4 0.9 |
| 93 | C E | 10.5 8.7 | 8.3 6.0 | 7.0 4.2 | 6.3 2.9 | 5.8 1.8 | 5.6 0.9 |
| 96 | C E | 10.8 8.9 | 8.5 6.2 | 7.2 4.3 | 6.5 3.0 | 6.0 1.9 | 5.7 0.9 |

| STORM DRAIN LATERAL | | | | | | | |
|---------------------|-------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| L | WLF | 30 | 40 | 50 | 60 | 70 | 80 |
| 12 | C E L | 1.4 1.7 3.3 | 1.8 1.3 2.6 | 1.6 1.1 2.2 | 1.5 1.0 1.9 | 1.4 0.9 1.6 | 1.3 0.8 1.7 |
| 15 | C E L | 1.7 2.0 3.9 | 1.2 1.5 3.0 | 0.8 1.3 2.6 | 0.6 1.1 2.3 | 0.5 1.0 2.1 | 0.4 0.8 2.0 |
| 18 | C E L | 1.9 2.3 4.5 | 1.3 1.8 3.5 | 0.9 1.5 2.9 | 0.6 1.3 2.6 | 0.4 1.2 2.3 | 0.2 1.1 2.3 |
| 21 | C E L | 2.2 2.6 5.2 | 1.5 1.7 4.0 | 1.1 1.5 3.4 | 0.7 1.4 3.0 | 0.5 1.1 2.7 | 0.2 1.3 2.6 |
| 24 | C E L | 2.5 2.9 5.8 | 1.7 2.2 4.5 | 1.2 1.9 3.8 | 0.8 1.7 3.3 | 0.5 1.5 3.1 | 0.3 1.5 2.9 |
| 27 | C E L | 2.7 3.2 6.3 | 1.9 2.5 6.9 | 1.3 2.1 4.1 | 0.9 1.8 3.7 | 0.6 1.7 3.6 | 0.3 1.6 3.2 |
| 30 | C E L | 3.0 3.5 7.0 | 2.1 2.7 5.4 | 1.5 2.3 4.6 | 1.0 2.0 4.0 | 0.6 1.9 3.7 | 0.3 1.8 3.6 |
| 33 | C E L | 3.3 3.8 7.6 | 2.3 2.9 5.9 | 1.6 2.5 4.9 | 1.1 2.2 4.4 | 0.7 2.0 4.0 | 0.3 1.9 3.9 |
| 36 | C E L | 3.5 4.1 8.2 | 2.4 3.2 6.4 | 1.7 2.7 5.3 | 1.2 2.4 4.7 | 0.7 2.2 4.3 | 0.4 2.1 4.1 |
| 39 | C E L | 3.8 4.4 8.8 | 2.6 3.4 6.9 | 1.9 2.9 5.8 | 1.3 2.5 5.1 | 0.8 2.6 4.7 | 0.4 2.2 4.5 |
| 42 | C E L | 4.1 4.8 9.5 | 2.8 3.7 7.4 | 2.0 3.1 6.2 | 1.6 2.7 5.5 | 0.9 2.5 5.1 | 0.6 2.4 4.8 |

EXAMPLE:

Given D = 36" A = 60° B = 27"
Find L, C', E'

Solution:

- Enter Storm Drain Main Table with the given D & A:

$$C_M = 2.9' \quad E_M = 1.2'$$

- Enter Storm Drain Lateral Table with the given B & A:

$$C_L = 0.9' \quad E_L = 1.8' \quad L = 3.7'$$

- $C' = C_M + C_L$
 $C' = 2.9 \text{ ft.} + 0.9 \text{ ft.} = 3.8 \text{ ft.}$

- $E' = E_M + E_L$
 $E' = 1.2 \text{ ft.} + 1.8 \text{ ft.} = 3.0 \text{ ft.}$

APPROVED: *[Signature]* DATE: *12/27/84*
PUBLIC WORKS DIRECTOR - R.C.E. 18793

1 CORRECTED VALUES *12-23-86*

CITY OF RIVERSIDE
PUBLIC WORKS DEPT. - ENGINEERING DIV.

JUNCTION STRUCTURE B

STANDARD DRAWING NO.

421

Sheet 2 of 2

MARK REVISIONS APPR. DATE